



## VOLUME 8, NUMBER 1 JANUARY/FEBUARY 1989

Monthly meetings of S.B.A.C.E. the Final Frontier for Atari users, are held on the second Tuesday of the month, at 7:30 PM. The meeting location is:

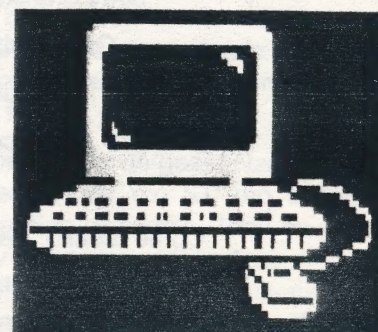
VFW Hall  
1865 Lomita Blvd  
Lomita, CA

Monthly ST meetings are held on the last Monday of the month, at 8:00 PM. The meeting location is:

Lawndale Community Center  
15331 Prairie Ave.  
Lawndale, CA

### The Editor's Keyboard

by Bill Little



Twass the week after Christmas  
And all through the house  
This editor was not editing  
Never touched his Atari's mouse

A festive week it was  
Just a lot of holiday partying  
It was obvious to all  
That I had neglected my fellow Atarians

Several articles had been submitted  
But a quick review had shown  
Many different word processors were used  
More then to this editor is known

I had just settled down  
To some basic computer fun  
Dungeon Master, Dragon Lance and others  
Were about to be run

## SBACE OFFICERS

### Board members:

(all 213 area codes unless noted)

|                           |                 |              |
|---------------------------|-----------------|--------------|
| President.....            | Jerry Bransford | 325-6204     |
| Vice President .....      | Eugene Bienko   | 534-3984     |
| Recording Secretary ..... | Daniel Prince   | 327-6147     |
| Treasurer.....            | Brian Eliassen  | 818-798-2744 |
| Librarian (8-bit).....    | Bob Lehmker     | 530-4071     |
| Newsletter Editor .....   | Bill Little     | 217-0725     |

### Appointed positions:

|                                |                |              |
|--------------------------------|----------------|--------------|
| Corresponding Secretary....    | Dick Reaser    | 645-7063     |
| Magazine Librarian .....       | Daniel Prince  | 327-6147     |
| ST VP/Librarian .....          | Alan Haskell   | 542-7870     |
| Asst. Newsletter Editors ..... | Brian Eliassen | 818-798-2744 |
|                                | Bob Gillies    | 771-5309     |



When all of a sudden  
There arose such a clatter  
I ran to the front door  
To see what was a matter

And just what wonders  
Did my eyes behold  
Why it was my fellow club officers  
Acting real bold

Jerry Bransford was in the lead  
Quite fashionably dressed  
He made a loud racket  
As he cried to the rest

Come Bienko, Haskell, Reaser and Prince  
Come Lehmker, Eliassen, Gillies and Knauss  
Let us find out  
Why that last issue was lost

Jerry laid a finger  
To the side of his nose  
And I found myself surrounded  
We were all standing toe-to-toe

Now look here guys  
See it my way  
And I could see that my words  
Were beginning to sway

Ok there mister editor  
You have calmed our fears  
But you better start producing  
Lets see six issues next year

Yes yes I promise  
All six issues this time

As long as more club members contribute  
Everything will be fine

Deep in thought I was  
On what my fellow officers had to say  
But in the back of my mind I knew  
Elections are only a few months away!

(With apologies to the original)

A BELATED HAPPY HOLIDAYS TO ALL MY FELLOW  
S.B.A.C.E. CLUB MEMBERS

### IMPORTANT ANNOUNCEMENT

I have just returned from the January general meeting where some discussion took place regarding combining the general and the ST-sig meetings into one meeting or maybe trying to find a cheaper place to hold the General meeting (we currently pay \$35 a month for the VFW hall). More discussions and a possible vote will be held at the next general meeting. If you have an opinion on this topic be there or let a club officer know your feelings.

### Article Submittal

I need to have articles in machine readable form so I can correct errors and fit them into my desktop publisher. I will accept short letters to the Editor or classified ads in printed or neatly handwritten form. I prefer that articles are transmitted to the TORRANCE FOREM at 320-1541, to P.C. HEAVEN at 374-7929 or to the SWAMPS BBS at 324-0218 (8-bit uploads only). These BBS's support F-mail so you can upload a file directly to me. Please include your name in the article you submit so I can give credit where credit is due. I will be checking these BBS's every week or so and will try to leave you a message using E-mail when I have received your file. Please call me at 217-0725 if you have a question or if you want to tell me that you have uploaded an article. You can also give me articles on disk at the meetings (8-bit or 16-bit) or call me to make a special arrangement.

### Member's Classified Ads

As a service to our club members we will place short classified ads in this newsletter to help you sell/trade/buy computer equipment and/or software. Contact me at 217-0725

\*\*\* SUBMIT ARTICLES - SHARE \*\*\*



## THE ATARI/FEDERATED USER GROUP MEETING

After the success of two fine Atari shows in Glendale in two successive years, we were all feeling our oats, as the old men say.

When Sigmund Hartman, the Executive Vice President of Atari, said he wished to bring the Capos of the local mobs together and dialogue, it sounded like a new beginning. Big John Tarpinian, the Capo de Tutti Capi of all the Southern California families acted as the maestro of the show and it was very impressive.

Sounds like something out of the Godfather doesn't it? Well no, it wasn't Appalachian. We met at the Pickwick Convention center in Burbank on the bright, sunny, early noon of November 5th and stuffed ourselves with plenty of Coca Cola and coldcuts. Sig brought along his enforcer, Wayne Smith (now isn't that an alias for you?) who is the Southern California Sales Manager. Each of us was given one question and, even with this limit, the afternoon was waning into the gloom by the time Big John cut it off.

Four door prizes were raffled off and yours truly won a copy of Microsoft Write for SBACE which will be passed on to some lucky person at a ST-SIG meeting soon.

Some of the things Sig Hartman said had previously been said at Glendale and other places. He made these statements sound very convincing. I think he is a very effective ambassador for such a potentate as Jack T. Whether he can deliver only time will tell, but I think he is sincere. He said that four years ago the Apple Macintosh had an impressively large booth at the Hanover electronics show, one of the biggest shows of its type in Europe. Last year they were hardly represented. Atari had become the European standard. This had led Atari to become the Fortune 500 company it now is. This is an indication of the stability and health of Atari. However, this has cost. The lack of facilities, the shortage of chips, and the unwillingness to grow too big too soon, has meant there has not been enough hardware to meet the demands of the United States market. He agrees that this may have been a mistake, considering the already established base of Atari computer users in the US, but this is water over the dam and he predicts that the ST family of computers will become a standard here as it is in Europe, possibly as soon as next year as they plan to make a large advertising push in the next few months.

A solid base of dealers is of paramount importance but Atari is intent upon having only those who can show they have the dedication to Atari products and repairs. He mentioned that Atari is looking for competent people to hire and hopes to see some resumes. He is also interested in hiring Atari-knowledgeable people for the Federated Group. He has been made fully aware of the dissatisfac-

tion Atari owners have with the Federated's past employees. Sig is responsible for user group interface on top of all of his many other hats. This is certainly a change for the better. Warner managed to almost totally obscure any attempts at communication with Atari by user groups such as we had for a short time with the assignment of Earl Rice for a while in the early '80's. Sig will continue to travel to local groups such as were at today's meeting, and can be reached by phone at 408-745-2906. I know it works as I wrote him and he called me at home, getting my machine. I called him and got his secretary. He returned the call within two hours.

Atari intended to support the 8-bit line more fully in the future. Sig plans to make A-DOS available to all of the user groups through the presidents of the groups. Now don't you wish you had been nicer to me, eh? The Atari PC is now available in Europe. He was not sure when they can get it into US showrooms. He had much more to say than we have space here for.

Sig introduced a San Jose police sergeant Named David Flory. Dave has managed to get the ST into a central position in the data processing of crimes. They have four Mega-4's and are rapidly becoming a Bay Area resource on computer crime itself. Diagrammatic illustrations of crime scenes for trial use are generated on the Atari. All sorts of crime related data-base uses for the Atari have made themselves known. Dave is a SISOP on GENIE too.

The general feeling was that we are now seeing a new relationship with Atari, a sort of Glasnost. I certainly hope so. Since I bought my first Atari computer, an 800 with 8K of RAM, in 1981, I have felt that we had the finest electronics available coupled with the most abysmally ignorant customer interface it was possible to have to deal with. Our hope that this changed with Warner's exit was dimming when Sig Hartmann came back on the scene and began to play on our heartstrings. Keep it up, Sig!

Gerald J. Bransford, roving romancer...er (ahem!) reporter

## COMDEX/Fall '88, November 14-18, 1988, Las Vegas.

Hah! I'm back. Thought I was gone? I was only visiting the mob in Sin City, Nevada, ...oops, sorry, Lost Wages, Nevada. This is where it only cost me about \$150.00 to go to the free Comdex show. The ticket was free but I had to get across 300 miles of assorted desert, mountains, rich people, etc. For any neophytes out there, Comdex is a super trade show for the electronics business. It is not really open to you and me. I pulled rank, however; as your chief executive, I became sort a hybrid. Not truly one of them and not simply a consumer.



Comdex occupied the entire Convention Center as well as the display space and many rooms in West Hall, Bally's, Caesars Palace, Hilton, Riviera, Sahara and Cashman Field Center. There were over 17,000 exhibitors, some of whom occupied as much space as 10,000 square feet and had special effects to put the film industry to shame. Atari had their own special place just off the main entrance to the Convention Center. Called the "Gold Room," it is about 2/3 the size of the Glendale Convention Hall main floor. It had a stage too. In fact, earlier in the week the group, Fleetwood Mac, played live for the Atarians gathered there.

The room was divided into compartments using the sort of 5-foot dividers you see in large offices (fabric covered panels). At the right as you entered you found the three major desktop publishers, all with Mega machines and laser printers. One of them had a Viking "Monitorm" 19" 1280 X 960 resolution monochrome monitor. There were Vikings several other places too. Most of the equipment was being operated by members of the two local Atari user groups as some of the vendors had left by Friday, the day I managed to schlep myself in. Several specialized applications of the computer were demonstrated such as medical management, etc. A double sided printed circuit board layout program was being shown. Two scanning demonstrations were available. The Canon Scanner used with the Navarone software (best for text, I understand) and the not-yet-available \$300 device that fits on the HP Deskjet to scan in 300 dot resolution (this from Seymor/Radix). A couple of CAD programs were there but the stations were not working. There were two different Atari PC computers showing high res color graphics, and two of the T800 workstations with the Inmos Transputer, developed by the Brits in conjunction with Atari, which are capable of 10 million instructions a second. They are rated at 1.5 megaflop (for those of you interested in esoterica). They have 1280 X 960 color resolution with 4096 colors. Other combinations are available. I missed the laptop computer. I understand the prototype (mockup?) failed or broke on the first day and spent the rest of the week in the hotel room as punishment.

Other than the glow of so many megacomputer monitors, there was little in the way of "glitz" to grab the casual passerby. Of course, Atari was not looking for such casual interest or they would have been on the main floor with Mac and the boys. My initial feeling was disappointment at the casual environment. Several "Power without the Price" banners, etc. on the walls were all that identified the display. I quickly became optimistic and decided that they were using the money to make better hardware, rather than grabbing people by the eyes. Hooray for them.

I left LA on the 7:35 AM plane and arrived back home at just after midnight. I probably had walked ten miles that

day, attempting to get some answers about IBM and Mac for my bosses at Hughes Aircraft Company, however the quality time was the period I spent in the Gold Room with my friends the Atarians.

Gerald J. Bransford, Chief Executive and odd jobs done cheap.



## What's Gnu

(11/06/88)

by Dick Reaser



DOSs, John Brandt (SLCC Journal 8-88). A historical review of DOS1, DOS2.0S, DOS2.0D, DOS3, DOS4, ASOS, OS/A+v1, OS/A+v2, DOSXL, OS/A+v4, MYDOS, SmartDOS, SpartaDOS, TopDOS, & SUPERDOS.

Diamond, Reeves Software (HISUG 8-88). A new operating environment for the 8-BIT which includes Diamond Write, Diamond Paint, Diamond Publish, Diamond Draw, Diamond Basic, Diamond Asm & Diamond C.

Discovery Cartridge System, Happy (BAAUG 8-88). 12 page press release information.

Hurricane Tracker, Bill Kithas (HACE 6-88). An application program using Harry Koon's Mapware.

RS-232 to TTL Translator Circuit, Rich Gratzner (PSAN 8-88). A hardware project with schematic and parts list.

HP DeskJet Printer, Mike Hall (PSAN-6-88). A review.

Free Magazines, Joseph Adato (Keeping PACE 7-88). A list of names and addresses to write to.

SuperDOS 4.4, Donny Arnold (DAL-ACE 5-88). A review.

Desk Top Publishing on an 8-BIT, Bob Woolley (SLCC Journal 9-88). Using AtariWriter + and the HP DeskJet printer.

PR:Connection, W K Whitton, (RAAUG 9-88). Hardware modification to make it compatible with AtariWriter +.

(For those of you that are new to the club the What's Gnu column is compiled by corresponding secretary Dick Reaser. This column references a selection of interesting articles from other club's newsletters. If there is something here that you would like to read then contact Dick Reaser to insure he brings the article to the next club meeting for you. - editor)



# Programming the ST: XBIOS the Numbers

by Greg Knauss

Welcome back! This time out we're going to talk about four XBIOS calls, all of which are related to each other and are principally useful for graphics. This might get a little complex, so if you have trouble understanding anything, just ask questions at the next meeting or drop the Gazette a line. Or a letter, that might be easier.

Have you ever designed a game that just doesn't move fast enough to avoid flickering? It seems the ST just can't erase and re-draw the graphics fast enough for the human eye to miss it. The solution is a combination of XBIOS's 2 through 5.

Here's a list, I know how you like them:

XBIOS(2) The physical base of the graphics screen

XBIOS(3) The logical base of the graphics screen

XBIOS(4) The resolution of the graphics screen

XBIOS(5) Set all the above junk

First, let's define physical and logical bases. "Physical base" is the memory that the ST displays on the screen, "logical base" is where all the drawing commands work. So it is possible to set them to different points in memory, draw all your graphics, then flip that part of the memory to the screen. Bingo, no flicker. "Resolution" is the current resolution the ST is in and, yes, you can change it from within a program.

The first thing you need to do to set up "page-flipping" (what you do when you draw off-screen, then make it visible) is make enough space available for the second screen in memory. In GFA BASIC, strings are good for this. Unfortunately, the screen must be on a 512 byte boundary, but that's easy enough to take care of:

```
Screen$=Space$(32512) ! 32000 for the screen, 512 for overhead
```

```
Screen%=(Int(Varptr(Screen$)/512)+1)*512 ! Move to boundary
```

Now, Screen% holds the address of the alternate screen. Now we need to get the address of the original screen.

```
Original%=Xbios(2) ! Could use 2 or 3 'cause they originally ! point to the same thing
```

So, if you now call XBIOS(5) you can set the physical and logical bases to the separate screens. The following code, when used with the variables from above, create two

separate screens that flip back and forth, each with it's own picture. Obviously, this is not the only use, you can have the same background in each screen, then animate a man running across it. Since the man is draw off-screen, he won't flicker, as these examples don't.

Do

```
! Flip the addresses back and forth between the screens
```

```
Swap Screen%,Original%
```

```
! This actually sets the screens
```

```
Void Xbios(5,L:Screen%,L:Original%,-1)
```

```
! Draw a random picture
```

```
Deffil Random(15)
```

```
Pbox Random(320),Random(199),Random(320),Random(199)
```

```
Pause(10) ! Slow it down a bit
```

Loop

The L's in the XBIOS call *are vital*. They tell the computer that the following variables are *long words*, 32-bit parameters pointing to a memory location. Otherwise, the none-too-bright computer will assume normal 16-bit words and crash.

Also, if you break the program, the computer will just stop, no GFA "Stop program?" dialog box. This is because you're only seeing the physical base, the dialog box drew on the logical base screen. Hit RETURN to get back to the editing screen. You might want to save the original values of XBIOS(2) and XBIOS(3) and then restore them when you quit the program. Using GFA's On Break is good for this.

You may be wondering what that -1 is doing in there. Remember that I said we'd be able to change the resolution from within a program? That's what that's for. There's a few drawbacks: You can't switch monitor types, so you're limited to switching between low and medium resolution. Also GEM has no idea what you've done (since XBIOS is a system call) so all windows, dialog boxes, alert boxes and file selector will be messed up, but all the other commands work just great... Except COLOR and DEFFIL. COLOR and DEFFIL still think they're in the previous resolution, so if you go from medium to low, you'll only be able to set four COLORS and DEFFILs. But if you're loading NEOChrome pictures or clips, they show fine, since the values are preset for low res.

Here's the codes for the resolutions:

Code: Resolution:

0 Low

1 Medium

2 High

If you're using a color monitor and set the resolution to high, you'll reboot the computer, like pressing the reset button. Same if you're using a monochrome monitor and



set the resolution lower.

So if you call...

```
Void Xbios(5,L:-1,L:-1,Resolution)
```

...you can change the resolution to your liking. Need a low res Degas picture on one screen and 80 columns on another? Just flip between low and medium resolutions...

You can also use XBIOS(4) to check which resolution you are currently in. If you don't want to let people into a program if they're not in, say, low res...

```
If Xbios(4)<>0 then
```

```
Alert 1,"You need to be in low|resolution, bone-  
head!",1,"Oops",X
```

```
System
```

```
Endif
```

...will take care of it.

That's it for this time, kids. Remember, the only way to hurt a computer through the computer is with a hammer, so... play around!

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## RAMMIT

by

Rick "I'm Also Perfect" Reaser

26 November 1988

### KYAN PASCAL RAMDISK CONFIGURATION ON THE ATARI 130XE

After programming for about a year with Kyan Pascal on my Atari 800, I was pretty anxious to use the extra memory in my new Atari 130XE. Kyan Pascal supports a ramdisk and the manual recommends putting a lot of system files and parts of the KIX environment utility files on the ramdisk. I had written some extremely long programs for class that took an incredible amount of time to compile, debug, recompile, etc. The ramdisk was definitely going to save me a lot of time in future programming efforts. Copying the files into the ramdisk prior to a programming session was fairly keystroke intensive, so one of my first projects on my new 130XE was to write a program that automatically configures the ramdisk. This article will discuss two versions of the resultant program. The first program, "rammit," is designed to run from the KIX environment. The second program, "autoram," which is a slight variant of "rammit," is designed to be an autoboot program.

Both programs delete dup.sys and mem.sav from the

ramdisk and install the compiler, other system files, and some KIX utilities

in their stead. Actually, the source code can be easily modified and recompiled to meet user specific needs. My objective was to write the program entirely in Pascal. With the help of some "include" files from the Kyan System Utilities Toolkit I, and two Kyan Pascal unique program statements (chain and pointer). I was able to do just that. The results are programs that should be easy to understand and easy to modify with Pascal. In other words, no assembly language knowledge is required.

The source code (Listing 1 and Listing 2) for the two programs is pretty thoroughly documented, but there are a few things that warrant a little discussion. First, both programs take about four minutes to execute. The reason for this has to do with how the copy function was implemented in the Kyan Pascal "include" file. Kyan Pascal copies things one sector at a time rather than reading a whole file into ram and then writing it to the destination. This approach conserves user accessible ram, but is not optimal for large file transfers. Second you may remember reading in the DOS 2.5 documentation that in order to truly delete DUP.SYS from the ramdisk, you need to POKE an "1" in a location 5439 of ram-resident DOS. If you don't do this, DOS will try to find DUP.SYS on the ramdisk when it really isn't there and your system will crash. (Power cycle restart required.) Kyan Pascal doesn't have PEEK and POKE commands like Atari Basic. Assembly language Pascal routines for PEEK and POKE are given in the manual, but the "pointer" command will work just fine in this case. Fortunately, you can write a printable character ("1" in this case) to the location. If you had to write a decimal code between 128 and 252 (essentially non-printable ATASCII characters) additional programming gymnastics would be required to keep things in Pascal. Remember that when you call DUP.SYS by typing DOS while in KIX, DOS needs to be in all capital letters. You may hear some terrible "grinding" noises when you do call DOS (actually DUP.SYS) after deleting it from ramdisk, but don't be alarmed.

To modify the program so that different Kyan utilities are deleted or added on the ramdisk, simply change the names in the assignment statements for the source\_filename and dest\_filename. You may have to adjust some of the counters.

A few special notes are required for the autoboot version (autoram) of this program. To make the program autoboot, CAT it with automake and name it autorun.sys as described in the Kyan manual. Stdlib.s should be deleted from system disk (side) 1 and lib should be put in its place. The current autorun.sys file which contains the KIX shell should be renamed KIX.BIN. Insure that stdlib.s is on system disk (side) 2. It should already be there, but check



anyway. Make sure that RAMDISK.COM is on the disk with the new autorun.sys file. If you go into DOS during a programming session, you recall the KIX environment by binary loading KIX.BIN (remember the file has been renamed.) One final note about the chain statement at the end of autoram. It may not be required. After a Kyan Pascal program executes, you are usually put back into KIX (% prompt) as far as I can tell. Just to make sure there are no loose ends after the autoboot, I thought it wise to load KIX at the end. This way you are also given the little blurb you always get at the beginning of a session, so things look the same. Everything else you need should be in the following source code listings and comments.

For those of you with SpartaDOS 3.2, all this can be done with a fairly short BATCH file. SpartaDOS also supports double density which is also nice. One shortcoming is that the disk drive will always "go to sleep" twice during program compilation. More to follow on the SpartaDOS/Kyan Pascal connection in a future article.

Copyright Notice: Kyan Pascal is a trademark of Kyan Software Inc. SpartaDOS is a trademark of ICD, Inc.

Rick Reaser, 16 Glen Lake Drive, Pacific Grove, CA 93950. Home (408) 647-1096. School (408) 646-2772

**(NOTE: THE FOLLOWING PROGRAM LISTINGS ARE NOT INDENTED PROPERLY - YOUR PROGRAM LANGUAGE'S EDITOR WILL FORMAT THIS CORRECTLY WHEN TYPED IN. - editor)**

#### LISTING 1

```
program rammit (input, output);
(* Author: Rick Reaser. (408) 647-1096
Date: August 30, 1988
Description: This program configures the ramdisk on a 130XE to provide
an efficient environment while programming with Kyan Pascal. The
program automatically deletes the following files from the ramdisk
(D8):
1. dup.sys
2. mem.sav
and installs the following routines in their stead:
1. as (assembler)
2. ed (editor)
3. ls (disk file directory command)
4. rm (disk file deletion command)
5. stdlib.s (standard library for compiler)
6. pc (compiler)
Machine and Compiler: Atari 130XE with 128K memory (8 bit 6502
microprocessor).
Kyan Pascal Compiler (ISO Pascal)
Input: The six above object files that are to be installed onto the ramdisk,
need to be in drive 1 when rammit is executed. Lib will need to be
available when rammit is executed. Also note that this program
requires three "include" files from the Kyan Atari System Utilities
package in order to operate properly. These three "include" files need
to be on the same disk as the source code file for rammit when
rammit is compiled.
Output: As the program executes, self explanatory status messages are
printed on the screen so the program user can track progress of the
routine. Each message indicates whether the operation was
successful or not. An error message table at the end helps pinpoint
an error. The numbers in the table are the standard Atari error
messages. They are in the same order as the attempted operations.
Restrictions: This program will only work with Atari computers that have
ramdisk DISK.COM prior to execution. Two disk drives are also
required.
```

Modifications: It is very easy to modify this program to load different Kyan Pascal routines into the ramdisk to customize the environment for a particular user. Remember that with string assignments the length of the string must match exactly.

```
Copyright Notice: Kyan Pascal is a trademark of Kyan Software Inc. *)
type
pathstring = array [1..20] of char;
indicator_string = array [1..3] of char;
file_array = array [1..8] of pathstring;
status_array = array [1..8] of integer;
var
count, (* utility counter *)
cum_count : integer; (* sum of Atari error messages *)
status : status_array; (* array of the 8 Atari error messages generated *)
source_filename, dest_filename : file_array;
dos_pointer : ^char; (* pointer for DUP.SYS location flag *)
(* "include" files from Disk Utilities diskette *)
#i d2:adddv.i
#i d2:delete.i #i d2:copy.i
begin
cum_count := 0; (* initialize cumulative counter *)
source_filename [3] := 'D1:as';
source_filename [4] := 'D1:ed';
source_filename [5] := 'D1:ls'; (* initialize *)
source_filename [6] := 'D1:rm'; (* file *)
source_filename [7] := 'D1:stdlib.s'; (* names *)
source_filename [8] := 'D1:pc'; (* names *)
dest_filename [1] := 'D8:dup.sys'; (* initialize *)
dest_filename [2] := 'D8:mem.sav';
dest_filename [3] := 'D8:as';
dest_filename [4] := 'D8:ed';
dest_filename [5] := 'D8:ls';
dest_filename [6] := 'D8:rm'; dest_filename [8] := 'D8:pc';
dos_pointer := pointer (5439); (* tell DOS not to look in ramdisk for
DUP.SYS after DUP.SYS *)
dos_pointer^ := '1'; (* is deleted from the ramdisk (see DOS 2.5 manual)
*) for count := 1 to 2 do (* delete unneeded files *)
begin
status [count] := delete (dest_filename [count]);
cum_count := cum_count + status [count];
if status [count] = 1 then (* check if operation was successful *)
indicator := 'was'
else
indicator := 'not';
writeln (dest_filename [count]); (* echo results to screen *)
writeln (indicator, ' deleted');
writeln
end;
for count := 3 to 8 do (* install files on ramdisk *)
begin
status [count] := copy (source_filename [count], dest_filename [count]);
cum_count := cum_count + status [count];
if status [count] = 1 then (* check if operation was successful *)
indicator := 'was'
else
indicator := 'not';
writeln (source_filename [count]); (* echo results to screen *)
writeln (indicator, ' copied to');
writeln (dest_filename [count]);
writeln
end;
if cum_count > 8 then (* show error table if there was an error *)
begin
writeln ('Error messages:');
for count := 1 to 8 do
write (status [count], ' ');
writeln
end;
end.
```

#### LISTING 2

```
program autoram (input, output);
(* Author: Rick Reaser. (408) 647-1096
Date: August 30, 1988
Description: This program configures the ramdisk on a 130XE to provide
an efficient environment while programming with Kyan Pascal. The
program automatically deletes the following files from the ramdisk
(D8):
1. dup.sys
2. mem.sav
and installs the following routines in their stead:
```



1. as (assembler)
2. ed (editor)
3. ls (disk file directory command)
4. rm (disk file deletion command)
5. stdlib.s (standard library for compiler)
6. pc (compiler)

It then loads the KIX environment and banner.

Machine and Compiler: Atari 130XE with 128K memory (8 bit 6502 microprocessor) Input: When autoram is executed, all six above object files that are to be installed onto the ramdisk, need to be in drive 1, with the exception of stdlib.s which should be in drive 2. Lib will need to be available when autoram is executed. The autorun.sys file that boots KIX on Kyan Pascal System Disk Side 1 needs to be renamed as kix.bin. Also note that this program requires three "include" files from the Kyan Atari System Utilities package in order to operate properly. These three "include" files need to be on the same disk as the source code file for autoram when autoram is compiled.

Output: As the program executes, self explanatory status messages are printed on the screen so the program user can track progress of the routine. Each message indicates whether the operation was successful or not. An error message table at the end helps pinpoint an error. The numbers in the table are the standard operations. The program then loads the familiar KIX title screen with % prompt.

Restrictions: This program will only work with Atari computers that have ramdisk capability. The ramdisk must be initialized by DOS 2.5 RAMDISK.COM prior to execution. Two disk drives are also required.

Modifications: It is very easy to modify this program to load different Kyan Pascal routines into the ramdisk to customize the environment for a particular user. Remember that with string assignments the length of the string must match exactly. To make this program autoboot, CAT it with automake and name it autorun.sys as described in the Kyan manual.

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```

type
pathstring = array [1..20] of char;
indicator_string = array [1..3] of char;
file_array = array [1..8] of pathstring;
status_array = array [1..8] of integer;
var
count, (* utility counter *)
cum_count : integer; (* sum of Atari error messages *)
status : status_array; (* array of the 8 Atari error messages generated *) of
operation *)
source_filename, dest_filename : file_array;
dos_pointer : ^char; (* pointer for DUP.SYS location flag *)
(* "include" files from Disk Utilities diskette *)
#i d2:dddev.i
#i d2:delete.i #i d2:copy.i
begin
cum_count := 0; (* initialize cumulative counter *)
source_filename [3] := 'D1:as'; source_filename [5] := 'D1:ls'; (*--
-----*)
source_filename [6] := 'D1:rm'; (* initialize *)
source_filename [7] := 'D2:stdlib.s'; (* file *)
source_filename [8] := 'D1:pc'; (* names *)
dest_filename [1] := 'D8:dup.sys'; (*-----*)
dest_filename [2] := 'D8:mem.sav';
dest_filename [3] := 'D8:as';
dest_filename [4] := 'D8:ed';
dest_filename [5] := 'D8:ls';
dest_filename [6] := 'D8:rm';
dest_filename [7] := 'D8:stdlib.s';
dest_filename [8] := 'D8:pc';
dos_pointer := pointer (5439); (* tell DOS not to look in the ramdisk for
DUP.SYS after DUP.SYS *)
dos_pointer^ := '1'; (* is deleted from the ramdisk (see DOS 2.5 manual)
*)
for count := 1 to 2 do (* delete unneeded files *)
begin
status [count] := delete (dest_filename [count]);
cum_count := cum_count + status [count];
if status [count] = 1 then (* check if operation was successful *)
indicator := 'was'
else
indicator := 'not';
writeln (dest_filename [count]); (* echo results to screen *)
writeln (indicator, ' deleted');
writeln
end;
for count := 3 to 8 do (* install files on ramdisk *)
begin
status [count] := copy (source_filename [count], dest_filename [count]);
cum_count := cum_count + status [count];

```

```

if status [count] = 1 then (* check if operation successful *)
indicator := 'was'
else
indicator := 'not';
writeln (source_filename [count]); (* echo results to screen *)
writeln (indicator, ' copied to');
writeln (dest_filename [count]);
writeln
end;
if cum_count > 8 then (* show error table if there was an error *)
begin for count := 1 to 8 do
write (status [count], ' ');
writeln
end;
chain ('D1:kix.bin'); (* load KIX environment *)
end.

```

## Meeting Minutes

by nobody

I would like to take this opportunity to thank Greg Knauss for the meeting minutes that he submitted in the past few issues. Greg started going to college in San Diego this quarter and will no longer be able to take the minutes. I know that my fellow club members will join me in wishing you the best of luck with your college studies.

I would also like to thank Daniel Prince for volunteering to start taking the meeting minutes now.

Greg did not get a chance to write up the last few meeting minutes before he left for college so that is all for this column this issue. — editor.

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# Routines You Can Use:

by Dale Bryant

## GFA and U:

I mentioned in the last article that it was possible to find all occurrences of a search phrase within an array. (My apologies to Dale Bryant. It seems that I lost his first two articles in this series somehow during their downloading from a local BBS. Dale is working to get me another copy of those articles – editor.) If you are looking for one individual record of course this would not be necessary. However, if you had an array with phone numbers it might be nice to find all numbers within a certain area code. There could be many other applications but I will leave those to your imagination. The demo program that accompanies this article uses an example of finding all phone numbers within a certain area code. The data phone numbers are read from data statements and inserted into a string array. Each element of the array could also hold a name along with the phone number if you desire. The search could then be on a name or the area code. Remember that this routine finds all occurrences of the search phrase. If you search for area code 213 with the demo program all occurrences of 213 will be displayed. A phone number in area code 818 containing 213 (818-978-1213 will be displayed along with all numbers prefixed with 213. If this bothers you terribly use the search phrase 213-).

When we get into disk I/O you will see that these routines are necessary for the manipulation of records within the disk data file. With them we can find where each record resides in the disk file so we can change or delete the record. Here is the routine. (Again – indentations are not correct but your program's editor will correct them when typed in. – editor)

```
' LITTLE3.LST
DIM a$(100) !Allow 100 records
@read_records !Same as GOSUB
'-----PROCEDURE read_records
record%=1 !Start at record #1
DO !Read data and
READ a$(record%) !put into Array
EXIT IF a$(record%)="" !All done
INC record% !Our record count
LOOP !Go read another
QSORT a$(record%) !Sort-GFA 3.0 only
DEC record% !Subtract from count
FOR i%=1 TO record% !Show records
PRINT a$(i%) !on screen
NEXT i%
PRINT "Press Any Key to Continue"
VOID INP(2) !Wait for keypress
@find_records !GOSUB
RETURN !Every Procedure must end with a RETURN
```

```
DATA 213-376-4611,213-545-1000
DATA 213-374-9818,213-456-2123
```

```
DATA 213-541-4111,213-542-3112
DATA 818-628-7879,213-379-2800
DATA 213-372-0611,213-379-3112
DATA 818-629-5400,213-323-3100
DATA 800-925-2424,213-978-5432
DATA 800-936-3533,213-561-3444
DATA 213-542-5612,213-478-6256
DATA 213-452-5423,213-376-0611
DATA 213-372-4611,213-579-5423
DATA ","
```

```
PROCEDURE find_records
DIM srch$(record%,1) !For records read
start_look: !Like a line number
i%=0 !Set some variables
f%=0
n%=0
mc%=0
CLS
WHILE mc%=0
PRINT CHR$(&H1B)+ "p" + "Press Return to Exit" + CHR$(&H1B) + "q"
INPUT "Enter Search Phrase ";b$ !Get search phrase
b$=UPPER$(b$) !If alpha make uppercase
CLS
PRINT CHR$(&H1B)+ "p" + "Phone Numbers " + CHR$(&H1B) + "q"
IF LEN(b$)=0 !Just RETURN key
mc%=1 !don't look!
GOTO all_over
ENDIF
FOR x%=1 TO record% !This is our search loop
look_again:
c%=INSTR(c%+1,a$(x%),b$) !GFA INSTR command
IF c%<>0 !If c%<>0 we found a match
srch$(n%,0)=x% !
srch$(n%,1)=c%
INC n%
INC f%
PRINT a$(x%) !Display match
IF f%=17 !Counter for screen display
f%=0
PRINT AT(1,23);CHR$(&H1B)+ "p" + "Press Button or Key" + CHR$(&H1B) + "q"
REPEAT
UNTIL MOUSEK OR INKEYS<>""
CLS
PRINT CHR$(&H1B)+ "p" + "Phone Numbers " + CHR$(&H1B) + "q"
ENDIF
GOTO look_again
ENDIF
NEXT x%
ON ERROR
search_done
IF n%=0 !No match in array
PRINT CHR$(&H1B)+ "p" + CHR$(&H1B) + "b1" + CHR$(7);
PRINT b$;" Not Found in File";
PRINT CHR$(&H1B)+ "q" + CHR$(&H1B) + "b3"
PAUSE 100 !Wait a while
GOTO start_look !Want another look?
ENDIF
x1%=0
PRINT !Display how many found
PRINT CHR$(&H1B)+ "p" + CHR$(&H1B) + "b1";
PRINT n%; "Records located with ";b$;
PRINT CHR$(&H1B)+ "q" + CHR$(&H1B) + "b3"
PRINT CHR$(&H1B)+ "p" + "Press Button or Key " + CHR$(&H1B) + "q"
REPEAT
UNTIL MOUSEK OR INKEYS<>""
CLS
PRINT
f%=0
n%=0
WEND
all_over: !Clean up
f%=0
n%=0
ERASE srch%()
CLS
@go_editor !and split
RETURN
```

```
PROCEDURE go_editor
EDIT !Back to Editor
```



RETURN

This routine can be very useful in many types of programs. If you have GFA type it in and try it.

I should state that all of the routines presented are not original with me. As any programmer will do, if I see a useful routine I will add it to my library. Why re-invent the wheel? Also there are some good books available on programming in GFA if you are interested in programming. Have fun with your ST.

## Bargain Corner

by Daniel Prince

Annoyed with my Volksmodem 12's inconvenient habit of answering the phone whenever it is turned on and its lack of a speaker, I decided to get a new 2400 bps modem. As usual I looked around for the best price and found two models at \$125 and one at \$119. The two at \$125 are the Samsung from Amax Applied Technology, Inc., 301-a W. Mission Rd., Alhambra, CA 91803 (818) 300-8828 and the Smart One from Elco Computers 2 S. Garfield Ave., No. 5, Alhambra, Ca 91801 (818) 300-8562. I have looked at both of these and read parts of their manuals. They are almost exactly the same except that the Samsung has a black case and the other one's case is white. They both come with a two-year warranty, have non-volatile ram (instead of switches) to store many of the defaults, have built-in speakers, have a full complement of indicator lights, and neither defaults to answering the phone. I bought the Smart One and it has been working fine.

The \$119 modem is a discontinued model (I can't remember the name) sold at California Digital Inc, 17700 S. Figueroa, Carson 217-0500. It comes with a 90-day-warranty, has 4 switches, defaults to answering the phone on the fifth ring, has adaptive equalization and error correction circuitry. Adaptive equalization means it may work better with a bad phone line. I am not sure if the error correction circuitry is compatible with any other brand of modem or if both modems have to be the same.

I recently looked around at the Office Club store on 190th street just east of Western avenue, next door to the Waterbed store. They have quite a few computer related items at good prices. One thing I noticed was Epson composite green monitors for \$53. They also had several inexpensive printer stands and lots of computer furniture.

PS. The Samsung is now \$115.00

## Classified Ad

Well I think I will take up my own offer and place a classified ad here in the Gazette. This service is free folks.

### 8-bit Software For Sale:

Missile Command cartridge - \$2.00 (Cartridge Only)

Frogger disk - \$3.00 (Disk only)

Castle Wolfenstein disk - \$6.00 (With instructions)

Telengard disk - \$3.00 (With instructions)

Omnitrend's Universe disk - \$20.00 (Complete package)

Questron disk - \$10.00 (Complete package)

### Hardware:

6 foot male to centronics male printer cable - \$16.00

Contact Bill Little at (213)217-0725 if you are interested in any of the above items. I will have these at the next few General meetings also.





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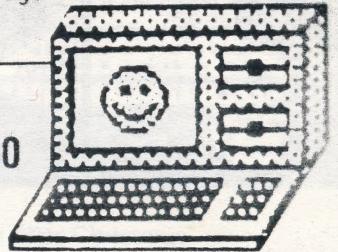
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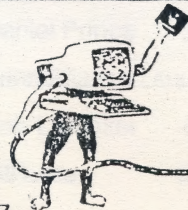
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## **MAGAZINE LIBRARY NEWS**

**by Daniel Prince**

The SBACE magazine library contains numerous Atari magazines including most editions of Analog, Antic, Atari Explorer, Byte, Compute, Page 6, plus many others.

If you want to borrow one of the club's magazines, call me or send me a postcard and I will bring that issue to the next SBACE meeting. I am going to try to bring some of the more recent issues to each meeting from now on.

Daniel Prince  
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